

**Abstract**

A system (30) and method for determining stock consistency and for using consistency as a process variable to control some aspect of operation of a refiner (32) used to refine stock. The system includes at least one sensor (70 or 180) from which 5 some refiner characteristic is obtained that is used by a processor (38) in determining consistency. The method uses the characteristic, such as temperature or pressure inside the refiner or in a refining zone (304) of the refiner, along with at least one other refiner parameter in determining consistency. A controller (274) uses the consistency determined in controlling some aspect of refiner operation. In one preferred controller, 10 consistency is compared with a consistency setpoint and adjustments are made to try to converge consistency with the setpoint. The controller can be paused to accommodate other changes made to refiner operation and released when steady state refiner operation is achieved.